## **ABSTRACT OF THE DISCLOSURE**

This invention relates to a method for the preparation of an osteoinductive agent, the use of such an agent, and to a kit for preparing such an agent. This invention further relates to the use of the said kit in the preparation and dispensing of such an osteoinductive agent in a method of reconstructive bone surgery. The kit includes an osteoinductive agent comprising a modified naturally occurring biocompatible biopolymer which was subjected, in the solid, or dry state, to a source of ionising radiation in the presence of a mediating gas and annealed in the absence of oxygen at a temperature of from 40°C to 120°C to render the product in a dry particulate form, the product being disposed in a hermetically sealed container containing oxygen-free gas.